

# NARUS Solutions for Transport Service Providers



## NARUS Solutions Enable Providers to:

- Maximize profitability by guaranteeing full revenue assurance
- Implement an out-of-the-box solution supported and evolved by the market leading supplier
- Profitably deliver new and differentiated service offerings
- Achieve profitable growth by intelligently managing customers, services and business models
- Optimize capacity planning and network infrastructure investments

### NARUS Billing Mediation Solutions

- Burstable Bandwidth – 95%ile
- Real-time Threshold Bandwidth
- Content Delivery

### Dynamics of the Transport Services Market

The non-stop growth of the Internet is driving ever increasing demand for bandwidth. To support this demand, service providers are rapidly building global networks based on Internet Protocol (IP) technology.

As bandwidth becomes commodity, the delivery of high-margin enhanced services becomes a competitive necessity.

### Meeting Market Challenges

To maintain their competitive edge, transport service providers recognize the need to extend traditional wholesale bandwidth business models with value-added service offerings to drive profitable growth.

Previously, however, service providers lacked the business infrastructure capabilities necessary to collect, process, and apply granular IP usage data in billing and decision support applications.

Effective Internet Business Infrastructure (IBI) Solutions from NARUS facilitate the inevitable shift from a focus on commodity services such as access, bandwidth, hosting, etc. to a focus on delivering and billing for differentiated, enhanced services.

*"By implementing the NARUS platform generation network to deliver new service services tailored specifically for them."*

## Powerful Solutions for Transport Service Providers

NARUS offers Billing Mediation Solutions designed to run on the NARUS Business Infrastructure Platform and allow service providers to:

### Increase Revenue By:

- Billing precisely for customer usage
- Creating new differentiated billing plans
- Marketing new value-added services

### Reduce Operational Expenses By:

- Accurately understanding costs per customer
- Optimizing the network infrastructure based on knowledge of service utilization
- Reducing support and management costs
- Decreasing churn and increasing retention

## NARUS Billing Mediation Solutions

Service providers no longer need to build and sustain custom solutions or attempt to use network management tools to capture and process IP usage data for billing. NARUS Billing Mediation Solutions are flexible, off-the-shelf solutions that enable service providers to rapidly define and develop value-based billing plans for differentiated IP service models. With universal data collection and aggregation capabilities, NARUS Billing Mediation Solutions set the new standard for IP billing mediation by offering high performance and scalability with guaranteed revenue assurance.

Full programmability of business rules combined with standards-based Internet Protocol Detail Record (IPDR) support allow for complete and easy integration with leading billing systems such as Convergys/Geneva, Digiquant, Amdocs/Solect, Portal and others.

### NARUS Platform Attributes

- Distributed network architecture
- Carrier-grade scalability and reliability
- Universal data collection
- Real-time collection
- Full revenue assurance
- Designed for IP networks

Service	Date	Transaction Description	Charges
Access	06/15	Monthly Access Charge	9.95
Voice	06/12	Local call (535 1234), 20 minutes, 4:25 pm	0.40
	06/10	International call (011 22 33 44 55), 7 minutes, 11:00 am	1.50
Video-Conferencing	06/01	IP: 192.168.1.123, QoS: High, Video: MPEG4, 300Kbps, 21 Min	9.00
E-mail	06/05	Standard Registered	3.00
	06/05	Message: 1MB; 57 To: xyz@xyz.com Subject: pictures, Attachments: 2 John.jpg (1.5MB)	3.50
Application Hosting	06/01	Sales Force Automation, QoS: High, File Upload (100Kbyte)	3.00
Premium Content	06/04	Web	1.50
	06/10	http://www.musiccity.com/top3/RadioHead/2.mth	2.30
AV Streaming	06/20	http://www.garret.com/tipreport/tip50	4.00
Shipping (micro-transactions)	06/10	http://www.crcb.com/finances.htm	
	06/10	Pao-Bell 431 service	

### Burstable Bandwidth - 95%ile

The NARUS Burstable Bandwidth Solution enables service providers to avoid or recover the costs of excess network provisioning by charging customers for exact usage of network links. This solution delivers accurate measurement of sustained bandwidth usage. Sustained usage is defined at the 95th percentile measurement of all bandwidth usage samples taken over a specified interval.

and solutions throughout our network, we will be able to leverage our next-  
such as usage-based billing, and provide our customers with a suite of

Joe Turcotte, Senior Vice President, Williams Communications

### ● Real-time Threshold Bandwidth

With the NARUS Real-time Threshold Bandwidth Solution, service providers can go beyond 95th percentile burst-mode billing and offer tiered plans for burstable bandwidth on-demand. Using the real-time capabilities of this solution, service providers can accurately track "bursty" traffic usage in very small aggregation intervals. Such flexibility and control over billing enables service providers to significantly increase revenues by billing for the "true value" of connectivity services rendered.

Some examples of NARUS Billing Mediation Solutions capabilities include:

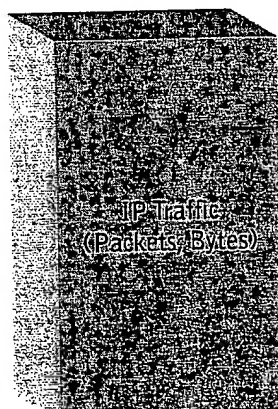
- Pricing plans based on usage not exceeding a fixed bandwidth limit
- Tiered pricing plans based on usage above a fixed bandwidth limit
- Pricing rate changes for usage that bursts above a set threshold
- Averaged pricing plans that discount some upper limit of usage (e.g. 95thile)

### ● Content Delivery

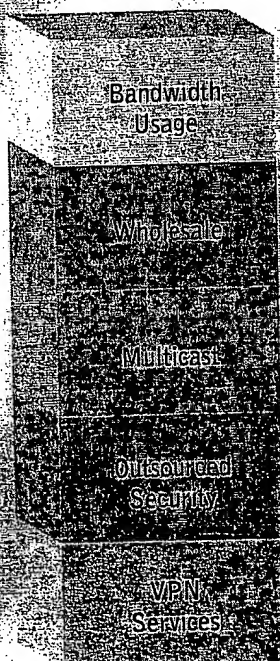
The NARUS Billing Mediation Solution for Content Delivery opens a new set of revenue opportunities. This solution employs NARUS' unique capabilities for capturing application and service usage information critical to implementing value-based billing mediation.

Billing Mediation for Content Delivery includes Web transactions, streaming media transfers, IP telephony events, etc. Service providers can now gain a competitive advantage by capturing the value of premium services offered.

Service providers, for instance, can create billing plans for streaming video of an international sporting event not available through local media outlets or they can charge business users for delivering distance training.



VS



**NARUS Internet Business Infrastructure Solutions**

**Decision Support**  
Service & Application Intelligence

**Billing Mediation**  
Differentiated Services

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## ● Powering the Service-Driven Business

In this incredibly dynamic world where technology is continuously creating new opportunities, service providers must have the capability to create business models that can profitably deliver the value of services being offered. But creating valuable services requires a business infrastructure that provides complete visibility into customers' behavior and preferences in real time. With this capability, service providers can recognize trends ahead of their competitors, and have the means of deploying new services and applications that take advantage of these opportunities immediately.

NARUS IBI Solutions provide the tools necessary to respond to a rapidly changing market—to satisfy customers and improve the bottom line.

To learn more about NARUS solutions and services, visit the NARUS Web site at <http://www.narus.com>.